

Public Health Starts Here.

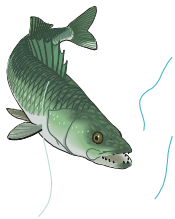
January-February 2004

The P2 Corner

Mercury is a serious public health and environmental problem. Mercury *persists* in the environment for a long period of time. If it is ingested or breathed in by a living organism, the mercury is not processed and discarded. It collects in the system.

Because it persists, mercury *bioaccumulates* (builds up in organisms such as the bodies of fish and the leaves of plants) in aquatic food chains. Plants might absorb mercury through their roots and be eaten by a small fish. The mercury in the plants builds up in the fish's body. If a number of small fish are eaten by larger fish, that fish now takes in all the mercury collected in the smaller fish's bodies. A fish will probably absorb mercury from several sources. When fish are eaten by a still larger fish, all that mercury is now concentrated in the larger fish's body. When

contaminated fish are eaten by a person, that person is poisoned by the mercury.



Breathing in mercury vapors (*inhalation*) is the most common and most dangerous way people are exposed to the health risks of mercury. Young children and fetuses are more vulnerable to mercury poisoning than adults.

Mercury is a *neurotoxin*: it poisons the central nervous system. It can damage the brain, digestive system, spinal cord, liver, and kidneys. Even short-term exposure to high levels of mercury vapors can cause lung damage, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation. Long-term exposure to low levels of mercury vapors can result in symptoms that get progressively worse and lead to personality changes, stupor, and coma.

Mercury Issues

BETH MANN, BILL LYONS, RALPH MARTIN

Uses

Mercury is a naturally occurring element. One of the most common uses for mercury is in thermometers. Mercury thermometers should be taken to a recycler or collection point. There are many excellent digital or electrical thermometers available on the market.



Mercury is also used in thermostats and fluorescent lighting. Fluorescent and HID lighting fixtures are excellent business and environmental choices. These bulbs can use up to 50% less electricity than incandescent lighting. However, fluorescent and HID lamps still contain mercury. Four-foot lamps can contain approximately 30 to 40 milligrams (about half a teaspoon) of mercury.



Disposal of Bulbs that Contain Mercury

For Businesses

Several items that contain mercury are banned from landfills and must be recycled. These include high pressure sodium, mercury vapor, and metal halide lamps. In addition, common fluorescent tubes, which contain mercury, cannot be placed in trash. They must be recycled or disposed of by a certified Hazardous Waste Contractor. They should NOT be broken under any circumstances. Place used bulbs back in their original containers for recycling to protect the bulbs and ensure that the recycler knows they contain mercury.

Most manufacturers now produce lighting tubes that have reduced mercury content. These are typically identified by "green tips" or some other distinguishing mark. The LLCHD recommends that businesses purchase low-mercury tubes and replace their standard

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Please circulate this issue among your staff and coworkers.

BUSINESS HAZARDOUS WASTE COLLECTIONS

The LLCHD Special Waste Program will host two hazardous waste collections for Conditionally Exempt Small Quantity (CESQ) generators. CESQ generators are businesses that generate less than 220 pounds (100 kilograms [kg]) of hazardous waste or less than 2 pounds (1 kg) of acutely hazardous waste per calendar

month. In addition, these facilities cannot generate more than 220 pounds of any residue from the cleanup of a spill of acutely hazardous waste at any time. These collections will be held in April and November. For more information contact Bill Lyons (441-8641) or Ralph Martin (441-8640).

HOUSEHOLD HAZARDOUS WASTE COLLECTIONS

*These collections are for **households** only; not for businesses. Only residents of Lincoln and Lancaster County can bring items to collections.*



Date	Location	Time
Sat. Apr. 24	Goodyear Tire & Rubber Co. 4021 North 56th St.	9:00 a.m.–1:00 p.m.
Fri. May 21	County Shop, Emerald (2 blocks north of Hwy 6 on NW 84th St.)	3:00–7:00 p.m.
Sat. May 22	Pfizer Inc, 601 W. Cornhusker Hwy Includes Latex Paint Exchange*	9:00 a.m.–1:00 p.m.
Fri. June 25	Union College, Parking Lot, 52nd & Cooper (3 blocks south of 52nd & Calvert)	3:00–7:00 p.m.
Sat. June 26	Neb. Wesleyan University, Parking lot, 56th & Huntington	9:00 a.m.–1:00 p.m.
Fri. Sept. 10	Waverly—location TBA	3:00–7:00 p.m.
Sat. Sept. 11	Lincoln–Lancaster Co. Health Dept. (LLCHD) 3140 N St., South parking lot	9:00 a.m.–1:00 p.m.
Sat. Oct. 9	Lincoln–Lancaster Co. Health Dept. (LLCHD) 3140 N St., South parking lot	9:00 a.m.–1:00 p.m.
Sat. Nov. 6	State Fair Park, 4-H Youth Complex	9:00 a.m.–1:00 p.m.

* Only good, usable latex paint is accepted. Please bring only containers that are at least half full. Call 441-8040 for information about properly disposing of unusable latex paint.

Household Hazardous Waste Collections **will** take:

- ☠ **HEAVY METALS**—Wastes containing liquid mercury such as thermometers and fluorescent bulbs.
- ☠ **SOLVENTS**—Mineral spirits, turpentine, paint strippers/thinners, oil-based paints, varnishes, stains, polishes, and waxes.
- ☠ **PESTICIDES**—Weed killers, garden sprays, wood preservatives, roach powder, pet flea and tick products, rat poisons, etc. (includes EPA-banned chemicals listed on the back of this brochure which should **not** be used).
- ☠ **ITEMS CONTAINING PCBs**—Ballasts from old fluorescent lamps and small capacitors from old appliances including radios, motors, and televisions.

Please keep products in the *original* container and keep the label intact. If the label is already destroyed or unreadable, label the products to the best of your knowledge. Open, leaking, or rusted containers should be placed in a clear plastic bag during transport to a collection. Please, **do not mix** chemicals!

Please Do **NOT** Bring —

- ❖ Latex Paint*
- ❖ Fertilizers
- ❖ Antifreeze (*recycle*)
- ❖ Used Oil (*recycle*)
- ❖ Medicines
- ❖ Batteries (*recycle*)
- ❖ Explosives & Ammunition
- ❖ General Household or Business Trash

If you have questions on how to dispose of these items, call the LLCHD at 441-8040.

SEEKING NOMINATIONS FOR LINCOLN—LANCASTER COUNTY ENVIRONMENTAL AWARDS

HARRY HEAFER

Nominations are being sought for the 2004 Lincoln-Lancaster County Environmental Awards. Lancaster County residents are encouraged to recognize local efforts to preserve and better the environment by

nominating an individual, school, organization or business for an environmental award. The awards recognize local efforts in the following categories:

Pollution Prevention: Preventing pollution and waste from being created, emphasis on toxics reduction

Waste Reduction & Recycling: Reduction in the amount of waste sent to the landfill

Water Conservation: Reduction in water use through utilizing water conservation equipment or planting drought tolerant plants

Cleanup/Beautification: Improvement in an area's visual quality

Residential/Commercial Development: Reducing waste during construction, utilizing drought tolerant landscaping, energy efficient and green building techniques

Environmental Education/Awareness: New or unique efforts for providing or supporting environmental education programs; increasing awareness about local environmental issues

Nomination forms are available by calling 441-8035 or may be filled out on-line at: www.ci.lincoln.ne.us/city/health/environ/kllcb/awards.htm. Nomination forms must be completed and returned by March 19, 2004. The awards ceremony dinner will take place on Friday, April 23 at 7:00 p.m. at the Bryan Hospital Conference Center, 48th & Cotner. Dinner reservations are available for \$15.00

The Lincoln-Lancaster County Environmental Awards Program is a collaborative project of the Lincoln-Lancaster County Health Department and the Lincoln Public Works and Utilities Department. Many generous donors make this event possible each year.



Use the enclosed form to submit nominations. Photocopies are acceptable.

FREE INFORMATION AVAILABLE

The LLCHD is committed to sharing environmental information and confidential business assistance. Our mission is to keep the residents of Lincoln and Lancaster County safe and healthy. We accomplish that mission by providing free information to residents and businesses.

back issues of *The ETHIC* on the LLCHD environmental web pages. This information is available at <http://www.ci.lincoln.ne.us/city/health/environ/pollu/>. You can call 441-8040 or Bill Lyons at 441-8641 for information or assistance.

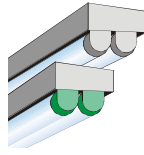
The ETHIC is one tool we use. In addition, we provide fact sheets, Power Point presentations, and



MERCURY ISSUES

(CONTINUED FROM PAGE 1)

tubes as they burn out. They can be purchased at many of the local lighting supply companies.



Although ALTO bulbs generally cost 46 cents more than comparable mercury tubes (reflected by the “premium” cost in the chart below), many low-mercury tubes cost less to use and discard than common fluorescent tubes. Because they last longer, the savings in energy and disposal costs yield about a 20% savings from similar, high-mercury bulbs.

ALTO® PLUS LAMPS SAVINGS PER LAMP

Premium cost of the ALTO PLUS lamp	(\$.46)
Material savings due to less frequent changes (20% x \$2.50 cost of standard lamp)	\$.50
Labor savings due to less frequent changes (20% x 20 minutes per lamp change x \$15 per hour)	\$1.00
Savings from relamping	\$1.04
Savings from disposal of standard lamps	\$.36
Total savings for each ALTO PLUS lamp	\$1.40

A facility that uses 5000 lamps and operates 4000 hours per year would save \$7000 over the six-year life of the ALTO lamps. That is a savings of more than \$1000 per year.

For more information go to <http://www.lighting.philips.com/nam/feature/alto/index.php>.

Low-mercury tubes can be placed in the regular trash for disposal, but the best option is recycling. “Green tips” can also be recycled for their glass and aluminum content. Low-mercury tubes placed in the trash should remain unbroken until the hauler picks them up so the hauler can verify that the tubes are low-mercury. Return low-mercury tubes to their original containers before placing them in the trash.

A Special Waste Disposal Permit is NOT needed for disposal of low-mercury tubes, *UNLESS the quantity to be disposed of exceeds 43 pounds in any one month*. Forty-three pounds is approximately equivalent to 114 four-foot tubes. A Type 27 Permit is required to dispose of more than 43 pounds. You can obtain this permit or more information from the LLCHD Special Waste Program (441-8640).

Standard tubes can be recycled through several firms servicing this area (i.e., Environmental Compliance

Enterprises, Lights Out, or Retrofit Recycling). Conditionally Exempt Small Businesses located within Lancaster County may also bring their standard tubes to one of LLCHD’s Hazardous Waste Collections for Small Businesses, which are held twice annually (look for announcements in future issues of *The ETHIC* or call 441-8640 for more information). It costs approximately 25 cents per foot to dispose of standard tubes at a collection.

For Households

The LLCHD recommends that households purchase low-mercury tubes and replace their standard tubes as they burn out. (See above for information about these bulbs.) Low-mercury tubes can be purchased at many of the local lighting supply companies.

Standard tubes may be recycled through several firms servicing this area (i.e., Environmental Compliance Enterprises, Lights Out, or Retrofit Recycling). Individuals can purchase boxes designed for shipping fluorescent tubes from Voss Lightening or Crescent Electric.

Households should bring mercury-containing items, including fluorescent tubes, to a Household Hazardous Waste Collection. The Lincoln–Lancaster County Health Department (LLCHD) will post a new schedule in the spring and collections will begin again in April. You can call the Household Hazardous Waste Program at (402) 441-8021 for more information. Check for updates on the LLCHD website <http://www.ci.lincoln.ne.us/city/health/envIRON/pollu/>.



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<http://www.ci.lincoln.ne.us/city/health/envIRON/pollu/>

The Ethic is published quarterly by the Lincoln-Lancaster County Health Department and is distributed to Special Waste Permit holders and other businesses in Lincoln and Lancaster County.

For more information or for P2 technical assistance, call 441-8040.

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